| **CK-12 Foundation** |
| **CK-12 Algebra I, Algebra I** |

Degree of Evidence regarding the Standards for Mathematical Practice:

Minimal Evidence

Summary of evidence:

1. **Make sense of problems and persevere in solving them**. Students are asked to make different representations (tables, graphs, and equations), but the connection between representations is up to the students and teachers to make – the resource does not draw attention to the relationship. There are few to no open-ended questions in the chapters reviewed, and there are no direct questions leading students to consider reasonableness. There are no opportunities for students to reflect on their answers. The resource gives some steps for students to try to create a problem-solving plan, but then the practice questions say to "make a graph and read the graph." Overall, there are very few open-ended questions or opportunities for students to make sense of mathematics. There is very limited opportunity for students to create a problem-solving plan and follow through or determine reasonableness.

2. **Reason abstractly and quantitatively**. In the sample reviewed, there are not many opportunities to apply mathematical ideas; typically students are answering narrow, guided questions. Students are not asked to consider the reasonableness of their results. There are some real-world application problems, but the questions are limiting and not open-ended. Algorithms or information is given to students, and then examples follow applying the information. Though there are application problems, students are rarely required to think abstractly.

3. **Construct viable arguments and critique the reasoning of others**. In the sample reviewed, students are never asked to justify or explain their answers or reasoning. There are no opportunities for students to make and test conjectures. In the chapters reviewed, there are no error analysis problems or opportunities for students to correct incorrect reasoning given in the text. There are limited to no opportunities for student to communicate their understanding.

4. **Model with mathematics**. In the sample reviewed, students are asked to create mathematical models for real-world situations. Rarely are students asked to revise their models. Students are not asked to make sense of their answer in context of the situation. Rarely are models used for difficult mathematical concepts. (One example is an area model for completing the square.) There are application problems, but rarely are students asked to create a model or think about reasonableness.

5. **Use appropriate tools strategically.** In the chapters reviewed, tools are rarely, if ever, used. Graphing calculators are referenced and demonstrated, but there are no references to algebra software in the chapters reviewed. There are references to YouTube videos. In summary, technology is mentioned in the chapters reviewed, but there is no discussion or questions surrounding advantages or shortcomings of tools or technology.

6. **Attend to precision.** There is some precision modeled in the examples. In the chapters reviewed, examples of precise communication, for example a sample student conversation in the teacher's edition, are not present. There are limited to no opportunities for communication, and there is no specific reference to precision.

7. **Look for and make use of structure**. Prior learning is rarely, if ever, referenced. Instead of students observing patterns, the resource tells students the information and then gives examples. There are no opportunities for students to generalize from patterns in the chapters reviewed. The resource does not move from specific examples to generalizations. Often the resource gives the

generalization and then asks questions for the students to apply ideas to specific problems rather than the other way around.

8. **Look for and express regularity in repeated reasoning.** In the chapters reviewed, students are rarely asked to notice patterns in order to make generalizations. Students are not asked to notice repetitiveness in order to discover shortcuts. There are few to no opportunities for students to decide reasonableness. There are few to no opportunities for students to generalize a pattern to determine a rule.